

REPORT NO.
109017 DST 2

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TEST DATE:

1-Feb-1988

S T A RTM

**A Schlumberger Transient Analysis Report
Of A Flopetrol Johnston Drillstem Test**

FLOPETROL JOHNSTON

Schlumberger

Company: **READ & STEVENS, INC.**

Well: **MARK FEDERAL #1**

TEST IDENTIFICATION

Test Type MFE OH SPRO TELEFLOW
Test No. Two
Formation Strawn
Test Interval (ft) ... 12423 to 12478
Reference Depth Kelly Bushing

WELL LOCATION

Field Wildcat
County Lea
State New Mexico
Sec/Twn/Rng 2-18-20s/34e
Elevation (ft) n/a

HOLE CONDITIONS

Total Depth (MD/TUD)(ft) . 12478
Hole Size (in) 7 7/8
Casing/Liner I.D. (in) ... --
Perf'd Interv./Nt Pay(ft). -- / 55
Shot Density/Diameter(in). --

MUD PROPERTIES

Mud Type Salt Water Gel
Mud Weight (lb/gal) 10.2
Mud Resistivity (ohm.m) .. n/a
Filtrate Resistiv.(ohm.m). --
Filtrate Chlorides (ppm) . 184,000

INITIAL TEST CONDITIONS

Initial Hydrostatic (psi). 6802
Gas Cushion Type None
Surface Pressure (psi) ... --
Liquid Cushion Type Fresh Water
Cushion Length (ft) 2000

TEST STRING CONFIGURATION

Pipe Length (ft)/I.D.(in). 11654 / 3.83
Collar Length ft/I.D.(in). 735 / 2.25
Packer Depths (ft) 12417, 12423
Bottomhole Choke Size(in). 1/2
Gauge Depth (ft)/Type 12471 / J-200

NET PIPE RECOVERY

Volume	Fluid Type	Properties
2000 feet	Cushion	Rw 4.4 at 60 F
		1,400 PPM
60 feet	Mud	Rw 0.13 at 60 F
		68,000 PPM

NET SAMPLE CHAMBER RECOVERY

Volume	Fluid Type	Properties
4.8 SCF	Gas	
500 cc	Oil	Mud cut
400 cc	Mud	n/a
Press. 700 GOR: -- GLR: --		

VALIDATION RESULTS

Model of Behavior
Fluid Type Used
Reservoir Pressure (psi) .
Transmissivity (md.ft/cp)
Permeability (md)
Skin Factor/Damage Ratio .
Storativity Ratio
Interporosity Flow Coeff..
Distance to Anomaly (ft).
Investigation Radius (ft).
Potentiometric Surf. (ft).

RECEIVED

JUL 18 1989

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ROCK/FLUID/WELLBORE PROPERTIES

Oil Density (deg. API) ...
Basic Solids (%)
Gas Gravity
Water Cut (%)
Viscosity (cp)
Tot. Compress. (1/psi) ...
Porosity (%) 10
Reservoir Temperature (F). 176
Form.Vol.Factor (bbl/STB).

PRODUCTION RATE DURING TEST: --

COMMENTS:

Enclosed is the data collected during the test of the above captioned well. The zone produced small amounts of oil and gas but did not produce enough to establish a reliable flowrate. The initial shutin showed a very distinct character change when the pressure reached hydrostatic, this flattening suggests that actual reservoir pressure is probably greater than hydrostatic.

The general character of the buildup plots suggest that the zone has low (to fair) effective permeability and some wellbore damage at the time and conditions of the test. The damage indication is based mainly on the apparent under-balanced pressure condition.